



**Winston H. Hickox**  
Secretary for  
Environmental  
Protection

# Air Resources Board

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**Alan C. Lloyd, Ph.D.**  
Chairman

2020 L Street • P.O. Box 2815 • Sacramento, California 95812 • [www.arb.ca.gov](http://www.arb.ca.gov)



**Gray Davis**  
Governor

## Vapor Recovery Defects List Workshop Notification

Vapor Recovery Defects List Workshop

Date: Wednesday, December 13, 2000

Time: 8:30am to 12:00pm

Location: First Floor Training Room 1  
Cal/EPA Building  
1001 I Street  
Sacramento, California, 95814-2828

### Background:

Existing law requires the State Air Resources Board (ARB) to identify equipment defects in systems for the control of gasoline vapors resulting from motor vehicles fueling operations. Assembly Bill 1164 further requires the ARB Executive Officer (E.O.) to list those defects, and to review that list at a public workshop on or before January 1, 2001. The bill authorizes the E.O. to initiate a public review of the list.

### Workshop Information:

To facilitate a public review of the list, ARB is holding a workshop to discuss the equipment defects presently identified. This meeting is open to federal, state, and local agencies; equipment manufacturers and their associations; wholesale and retail petroleum suppliers; installation, testing, and maintenance contractors; and any party interested in the vapor recovery equipment defects review process.

A preliminary defects list is attached to this notification. The purpose of this list is to provide you with an idea of the formatting, organization, and general scope of the vapor recovery equipment defects list that will be presented at the workshop.

Off-street parking is not available at 1001 I Street. There is limited metered parking around the perimeter of and on streets adjacent to the Cal/EPA Building. A list of seven public parking lots within a six-block radius of 1001 I Street is attached. Each lot has

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varying rates based on hourly to daily intervals. There are also several public transportation routes with stops in the vicinity.

The public entrance to the building is nearest to the corner of 10<sup>th</sup> and I streets. Please stop at the Security Officer's station in the lobby to check in and get directions to Training Room 1.

If you have any questions about the workshop or need additional information, please telephone Ranjit Bhullar at (916) 323-7370 or Neil Nipper at (916) 324-7343.

Sincerely,

*Signed Copy on File*

James J. Morgester, Chief  
Compliance Division

Attachments

**ATTACHMENT I**

**TITLE 17 DEFECTS TABLE**

## Vapor Recovery Defects

E.O. #	Equipment:	Defects:
All E.O.s	general	absence or disconnection of any component required to be used in the Executive Order(s) that certified the system
	hoses	a vapor hose which is crimped or flattened such that the vapor passage is blocked, or the pressure drop through the vapor hose exceeds by a factor of two or more the requirements in the system certified in the Executive Order(s) applicable to the system
	nozzles	flexible cone which is damaged in the following manner: for booted type nozzles for vacuum assist-type systems, more than ¼ of the flexible cone missing  nozzle shutoff mechanisms which malfunction in any manner
	vapor return lines/swivels/valves/underground piping	vapor return lines, including such components as swivels, anti-recirculation valves and underground piping, which malfunction or are blocked, or restricted such that pressure drop through the lines exceeds by a factor of two or more requirements specified in the Executive Order(s) that certified the system
	processing unit	vapor processing unit which is inoperative or severely malfunctioning
	vacuum	vacuum producing device which is inoperative or severely malfunctioning
	valves/dry breaks	pressure/vacuum relief valves, vapor check valves, or dry breaks which are inoperative  no pressure/vapor (PV) valve on any gasoline vent pipe  PV valves not installed in parallel on manifolded vents  PV valve which opens at less than 2.5 inches water column ("wc) pressure, or greater than 3.5 "wc pressure, or less than 6.0 "wc vacuum, or greater than 10.0 "wc vacuum  manifolded vents less that 12 feet above ground  vent pipe outlets not vented upwards

<p>All E.O.s continued</p>		<p>vent pipe outlets not located to eliminate the possibility of vapor accumulating or traveling to a source of ignition or entering adjacent buildings</p> <p>any pressure drop through the system, measured at a flow rate of 60 SCFH with dry Nitrogen gas, which exceeds 0.02 inches water column (0.03 inches wc if the measurement includes an impact valve)</p> <p>vapor return line slope less than 1/8 inch per foot</p> <p>dispenser disconnected from the riser</p> <p>dispenser connected to the riser with material which is not listed for use with gasoline</p> <p>dispenser-to-riser connection installed so that any liquid in the lines will drain away from the storage tank</p> <p>internal diameter of the dispenser-to-riser connector, including all fittings, less than five-eighths inch (5/8")</p> <p>any vapor return or vent piping not installed in accordance with the manufacturer's instructions or any applicable regulation</p> <p>Phase I system not CARB-certified or in good working order</p> <p>with the exception of manhole covers which are color coded for product identification, fill, vapor, and manhole tops; and storage tank vent pipes shall be maintained any color which minimizes solar gain and has a reflective effectiveness of 55% or greater</p>
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E.O. #	Equipment:	Defects:
G-70-7-AD Hasstech VCP-2 and VCP-2A	nozzles	any bootless nozzle used with any coaxial hose
	hoses	<p>any coaxial hose with a perforation exceeding 1/8 inch diameter</p> <p>any coaxial hose with slits or tears in excess of 1/4 inch in length or cumulative damage which similarly compromises the integrity of the vapor hose</p> <p>any inverted coaxial hose longer than 14 feet</p>
	collection unit	<p>threaded tap at least 1/8 inches in diameter not installed on the inlet side of the collection unit</p> <p>vacuum level at the inlet side of the collection unit less than 20 or greater than 40 inches water column</p> <p>any A/L ratio of the system measured at a flowrate between six and twelve gallons per minute (6 – 12 gpm) less than 1.4 or greater than 2.0 to 2.4</p>

E.O. #	Equipment:	Defects:
<p>G-70-14 Red Jacket</p> <p>G-70-17 Emco Wheaton Balance</p> <p>G-70-23 Exxon Balance</p> <p>G-70-25 Atlantic Richfield Balance</p> <p>G-70-33 Hirt</p> <p>G-70-36 OPW Balance</p> <p>G-70-38 Texaco Balance</p> <p>G-70-48 Mobil Balance</p> <p>G-70-49 Union Balance</p> <p>G-70-53 Chevron Balance</p> <p>G-70-78 EZ-flow rebuilds</p> <p>G-70-102 EZ-flow rebuilds</p> <p>G-70-107 Rainbow rebuilds</p> <p>G-70-125 Husky Model V</p> <p>G-70-127 OPW 111V</p> <p>G-70-134 EZ-flow rebuilds</p>	<p>nozzles</p>	<p>A nozzle boot which is torn in one or more of the following manners:</p> <ol style="list-style-type: none"> <li>1. Triangular-shaped or similar tear 1/2 inch or more to a side, or hole 1/2 inch or more in diameter or,</li> <li>2. Slit 1 inch or more in length.</li> </ol> <p>Faceplate or flexible cone which is damaged in the following manner: For balance nozzles and for nozzles for aspirator and eductor assist type systems, damage shall be such that the capability to achieve a seal with a fill pipe interface is affected for 1/4 of the circumference of the faceplate (accumulated).</p>

E.O. #	Equipment:	Defects:
<p>G-70-118-AB Amoco V-1</p>	<p>Husky V-1 nozzle</p>	<p>dispensing rate greater than 10.0 gallons per minute</p> <p>any nozzle with a defective vapor valve</p> <p>Blackmer model VR-3/4 pump not installed for each dispensing nozzle</p> <p>leak rate for any nozzle, including the vapor valve and, if present, the liquid removal system, shall not exceed 0.038 CFH at a pressure of two inches water column (2" wc), and 0.005 CFH at a vacuum of twenty seven inches water column (approximately 1 psi)</p> <p>A/L of the system, uncorrected to standard temperature and pressure, measured at a flow rate of at least seven gallons per minute (7 gpm), less than 1.11 at 7gpm, 1.08 at 8gpm, 1.06 at 9gpm, 1.04 at 10gpm (linear interpolation may be used to calculate intermediate values)</p> <p>if a threaded tap to monitor the UST is installed and is not vapor tight except when test equipment is being connected to or removed from it</p> <p>if located on the vent line, any tap less than six feet or greater than eight feet above grade</p> <p>Phase I system not in compliance with the static pressure decay test criteria contained in G-70-118-AB Exhibit4</p> <p>Coaxial Phase I systems used with new installations of the system</p> <p>spill static pressure containment manholes which have drain valves not in compliance with the decay criteria with the drain valves installed as in normal operation</p> <p>manholes with cover-actuated drain valves used in new installations</p> <p>efficiency compliance device (ECD) not functional</p> <p>ECD not installed or installed incorrectly</p> <p>any ECD which is damaged such that at least one eighth (1/8) of the diameter is missing, or has</p>



<p>G-70-118-AB Amoco V-1 continued</p>	<p>Husky V-1 nozzle continued</p> <p>OPW 11-VAA nozzle</p>	<p>cumulative damage equivalent to at least 1/8 of the diameter missing</p> <p>less than 2 unblocked vapor holes</p> <p>any ECD which is damaged such that a slit from the outer to inner edge exists, or has cumulative damage equivalent to this</p> <p>less than 3 unblocked vapor holes</p>
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E.O. #	Equipment:	Defects:
G-70-150-AE Marconi Vapor Vac		<p>A/L less than 0.90 or greater than 1.10</p> <p>improper functioning of any automatic shut-off mechanism</p> <p>mini-boot installed and vapor check valve missing</p> <p>vapor check valve installed and mini-boot missing</p> <p>dispensing rate greater than 10.0 gallons per minute</p> <p>more than 6 inches of inverted coaxial hose in contact with ground or island when the nozzle is properly mounted on dispenser</p> <p>more than 15 feet of inverted coaxial hose</p> <p>fuel dispensed with VaporVac operating improperly</p> <p>missing solenoid vapor valves</p> <p>solenoid vapor valves with leak rates exceeding 0.038 CFH at a pressure of two inches water column (2" wc), and 0.005 CFH at a vacuum of twenty seven inches water column (approximately 1 psi)</p> <p>a pressure drop through the system greater than one-half inch (0.5") water column at 60 SCFH</p> <p>internal diameter of the dispenser-to-riser connector, including all fittings, less than three-fourths inch (3/4")</p> <p>any fueling point associated with a vapor line which is disconnected and open to the atmosphere, including all fueling points at the facility if vapor lines are manifolded</p> <p>any vapor return line not manifolded below grade at the tanks Exception: For installations with a vapor return line directly to only one tank, and for which a manifold on the tank vents will be used to provide part of the vapor return path to other tanks, the vent manifold may be used as an alternative to the underground manifold <u>only</u> in existing installations where the vapor piping is already installed, and shall not be used in "new" installations where vapor piping is being installed. For installations with dedicated vapor piping directly to each tank, the vent manifold is approved for both new and</p>

<p>G-70-150-AE Marconi Vapor Vac continued</p>	<p>Catlow ICVN nozzle</p> <p>Emco Wheaton A4505 nozzle</p> <p>Emco Wheaton A4500 nozzle</p> <p>Husky V34 6200 nozzle Husky V34 6250 nozzle</p> <p>Husky V3 nozzle</p> <p>OPW 11VAI nozzles</p>	<p>existing installations and an additional tank manifold below grade is optional but not required</p> <p>Phase I system not in compliance with the static pressure decay test criteria contained in G-70-150-AE Exhibit 3</p> <p>Coaxial Phase I systems used with new installations of the system</p> <p>spill static pressure containment manholes which have drain valves not in compliance with the decay criteria with the drain valves installed as in normal operation</p> <p>manholes with cover-actuated drain valves used in new installations</p> <p>different nozzle types on any fueling point</p> <p>less than 3 unblocked vapor holes</p> <p>no efficiency compliance device</p> <p>efficiency compliance device slit from base to the rim</p> <p>less than 3 unblocked vapor holes</p> <p>no vapor guard</p> <p>vapor guard 1/8 of circumference missing or cumulative damage equivalent to at least 1/8 of the circumference missing</p> <p>less than 3 unblocked vapor holes</p> <p>no vapor splash guard</p> <p>no vapor splash guard</p> <p>a 1.5 inch slit in vapor splash guard or cumulative damage equivalent to a 1.5 inch slit</p> <p>any hole greater than 3/8 inch in vapor splash guard or cumulative damage greater than 3/8 inch hole</p> <p>less than 1 unblocked vapor holes</p> <p>less than 4 unblocked vapor holes</p>
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G-70-150-AE Marconi Vapor Vac continued	OPW 11VAI nozzles continued OPW12V nozzle  OPW12VW nozzle	spout of material other than stainless steel  less than 1 unblocked vapor holes  no vapor exchange guard  vapor exchange guard with $\frac{3}{4}$ of the circumference missing or cumulative damage equivalent to at least $\frac{3}{4}$ of the circumference missing
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E.O. #	Equipment:	Defects:
G-70-153-AD Dresser/Wayne Wayne Vac		<p>any Splash guard that interferes with the operation of a VEG or VSG unit</p> <p>a dispensing rate greater than 10.0 gallons per minute</p> <p>any fueling point not capable of demonstrating an A/L compliance with its performance standard described in G-70-153-AD, Exhibit 2, page 4</p> <p>any dispensing which occurs while the vacuum pump is inoperable or while the LED on the dispenser computer control board continues to flash three times every few seconds</p>
	all nozzles	<p>any integral vapor valve not installed, installed incorrectly, or not operating properly is a defect for that nozzle and all nozzles at the same fueling point (dispenser side)</p>
	OPW 11VAI and Husky V34 6200-4 nozzles	<p>any leak rate exceeding: 0.038 CFH at a pressure of two inches water column (2" wc) or 0.005 CFH at a vacuum of twenty seven inches water column</p>
	less than 2 unblocked vapor holes	<p>less than 2 unblocked vapor holes</p>
	Vapor Escape Guard (VEG) not installed or installed incorrectly	<p>Vapor Escape Guard (VEG) not installed or installed incorrectly</p>
	any VEG damaged such that at least one-eighth (1/8) of the circumference is missing, or which has cumulative damage equivalent to at least 1/8 of the circumference missing	<p>any VEG damaged such that at least one-eighth (1/8) of the circumference is missing, or which has cumulative damage equivalent to at least 1/8 of the circumference missing</p>
	OPW 11VAI nozzle	<p>new or rebuilt replacement nozzles with a spout made of material other than stainless steel</p>
	less than 2 unblocked vapor holes	<p>less than 2 unblocked vapor holes</p>
	Husky V34 6200 nozzle	<p>Vapor Splash Guard (VSG) not installed or installed incorrectly</p>
	Husky V34 6200 and V34 6250 nozzles	<p>any VSG damaged such that at least a one and one-half (1.5) inch slit has developed, or which has cumulative damage equivalent to at least a 1.5 inch slit</p> <p>any VSG flange portion that does not make contact with or cover the entire fillpipe opening when properly latched into a vehicle fillpipe meeting CARB's standard</p>

G-70-153-AD Dresser/Wayne Wayne Vac continued	Husky V34 6200 and V34 6250 nozzles continued	any VSG with a hole greater than three-eighths (3/8) inch or which has cumulative damage greater than a 3/8 inch hole
	Emco Wheaton A4505 nozzle	less than 3 unblocked vapor holes  Vapor Guard (VG) not installed or installed incorrectly Any VG damaged such that at least one-eighth (1/8) of the circumference is missing, or which has cumulative damage equivalent to at least 1/8 of the circumference missing
	Catlow ICVN and Richards Astrovac nozzles	less than 3 unblocked vapor holes  Efficiency Compliance Device (ECD) not installed or installed incorrectly  any ECD damaged with a slit from the base to the rim
	OPW 12VW nozzle	less than 1 unblocked vapor hole  Vapor Escape Guard (VEG) not installed or installed incorrectly  any VEG damaged such that at least three-quarters (3/4) of the circumference is missing, or which has cumulative damage equivalent to at least 3/4 of the circumference missing
	Inverted Coaxial Hoses	any length of hose in contact with the island and/or ground when the nozzle is properly mounted on the dispenser greater than six inches (6")  any length of hose, including the breakaway and/or whip hose ('pig tail') sections, greater than fifteen feet (15')

E.O. #	Equipment:	Defects:
<p>G-70-169-AA Franklin Electric Intellivac</p>	<p>OPW 11VAI nozzle</p>	<p>any A/L ratio of the system measured at a flowrate between six and ten gallons per minute (6 – 10 gpm) less than 0.88 or greater than 1.08</p> <p>the system does not shut down when the Intellivac pump exceeds 90 degrees Celsius</p> <p>the system does not reset automatically when the pump cools down below 80 degrees Celsius after shut down</p> <p>voltages less than 90 or greater than 135 volts do not cause the system to shut down on systems designed to operate with 115 volts</p> <p>voltages less than 180 or greater than 270 volts do not cause the system to shut down on systems designed to operate with 230 volts</p> <p>the system does not automatically sense conditions that cause high power levels and shut down</p> <p>the system does not restart automatically after less than three shut down send signal wait-restart cycles</p> <p>the system does restart automatically after three or more shut down send signal wait-restart cycles</p> <p>the system does not generate an error signal when a liquid blockage in the vapor path is sustained for more than 15 secondsany nozzle with a defective vapor valve including all nozzles at the same fueling point (dispenser side)</p> <p>any nozzle leak rate exceeding: 0.038 CFH at a pressure of two inches water column (2" wc) or 0.005 CFH at a vacuum of twenty seven inches water column</p> <p>a dispensing rate less than 6.0 or greater than 10.0 gallons per minute</p> <p>any length of inverted coaxial hose longer than 15 feet</p> <p>any length of inverted coaxial hose in contact with the island and/or ground greater than to six inches (6") when the nozzle is properly mounted on the dispenser</p> <p>efficiency compliance device (ECD) not installed or</p>

<p>G-70-169-AA Franklin Electric Intellivac continued</p>	<p>OPW 11VAI nozzle continued</p> <p>Husky V34 6250 nozzle</p>	<p>installed incorrectly</p> <p>ECD damaged such that at least <math>\frac{1}{4}</math> of the circumference is missing or which has cumulative damage equivalent to at least <math>\frac{1}{4}</math> of the circumference missing</p> <p>fewer than two unblocked vapor collection holes</p> <p>any nozzle with a vapor splash guard (VSG) which is missing</p> <p>any nozzle with a VSG damaged such that at least a one and one-half (1.5) inch slit has developed, or which has cumulative damage equivalent to at least a 1.5 inch slit</p> <p>any nozzle which is damaged such that greater than a three-eighths (<math>\frac{3}{8}</math>) inch hole has developed, or which has cumulative damage greater than a <math>\frac{3}{8}</math> inch hole</p> <p>any nozzle with a VSG compressing more than one-half (0.5) inches when a compression force of at least 1.5 pounds is applied</p>
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E.O. #	Equipment:	Defects:
G-70-179 Catlow ICVN-VI		<p>efficiency compliance device (ECD) not installed or installed incorrectly</p> <p>ECD damaged such that at least <math>\frac{3}{4}</math> of the diameter is missing or which has cumulative damage equivalent to at least <math>\frac{3}{4}</math> of the diameter missing</p> <p>any nozzle which has fewer than four unblocked vapor collection holes in the spout</p> <p>any nozzle with a defective vapor valve</p> <p>any nozzle leak rate exceeding: 0.038 CFH at a pressure of two inches water column (2" wc) or 0.005 CFH at a vacuum of twenty seven inches water column</p> <p>any length of inverted coaxial hose longer than 15 feet</p> <p>any length of inverted coaxial hose in contact with the island and/or ground greater than to six inches (6") when the nozzle is properly mounted on the dispenser</p> <p>a Blackmer model VRFC pump not installed for each dispensing nozzle</p> <p>any A/L ratio of the system measured at a flowrate between six and ten gallons per minute (6 - 10 gpm) less than 0.92 or greater than 1.12</p>

E.O. #	Equipment:	Defects:
G-70-183 Healy/Franklin Vac Assist		<p>any nozzle with a vapor guard which is missing</p> <p>a vapor guard damaged such that a slit from the outer edge of the open end flange to the spout anchor clamp, or which has an equivalent cumulative damage</p> <p>any nozzle which has fewer than four unblocked vapor collection holes in the spout</p> <p>any nozzle with a defective vapor valve</p> <p>any nozzle leak rate exceeding: 0.038 CFH at a pressure of two inches water column (2" wc) or 0.005 CFH at a vacuum of eighty-three inches water column</p> <p>a dispensing rate less than 6.0 gallons per minute</p> <p>any length of inverted coaxial hose longer than 13 feet</p> <p>any length of inverted coaxial hose in contact with the island and/or ground greater than to six inches (6") per loop when the nozzle is properly mounted on the dispenser</p> <p>any A/L ratio of the system measured at a flowrate between six and ten gallons per minute (6 – 10 gpm) less than 1.00 or greater than 1.20</p> <p>the system does not shut down when the Franklin VP 1000 Vapor pump exceeds 90 degrees Celsius</p> <p>the system does not reset automatically when the pump cools down below 80 degrees Celsius after shut down</p> <p>voltages less than 90 or greater than 135 volts do not cause the system to shut down on systems designed to operate with 115 volts</p> <p>voltages less than 180 or greater than 270 volts do not cause the system to shut down on systems designed to operate with 230 volts</p> <p>the system does not automatically sense conditions that cause high power levels and shut down</p> <p>the system does not restart automatically after less than three shut down send signal wait-restart cycles</p>

G-70-183 Healy/Franklin Vac Assist continued		<p>the system does restart automatically after three or more shut down send signal wait-restart cycles</p> <p>the system does not generate an error signal when a liquid blockage in the vapor path is sustained for more than 15 seconds</p>
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E.O. #	Equipment:	Defects:
<p>G-70-186 Healy Model 400 ORVR</p>		<p>operating pressure range at the nozzle boot/fillpipe interface less than ½ inches water column vacuum or greater than ¼ inches water column pressure</p> <p>any nozzle leak rate exceeding: 0.038 CFH at a pressure of two inches water column (2" wc) or 0.005 CFH at a vacuum of eighty-three inches water column</p> <p>dispensing when the central vacuum unit is disabled for maintenance or for any other reason</p> <p>threaded NPT tap of either 1/8" nor 1/4" in diameter not installed on the inlet side of the central vacuum unit</p> <p>tap not plugged and vapor tight when test equipment is not being connected or removed</p> <p>system allowed to operate when the tap is not vapor tight</p> <p>more fueling points than can be supported by the central vacuum unit as per G-70-186, Exhibit 2, page 3</p> <p>system not operating within the vacuum level range as per G-70-186, Exhibit 2, page 3</p> <p>central vacuum unit (CVU) valve not installed in the vapor return line so the lines can be isolated from the underground storage tanks for conducting the Vacuum Return Line Integrity Test</p> <p>CVU valve closed when the test is not being conducted</p> <p>product dispensed when the CVU valve is closed</p> <p>9466 Check Valve removed or bypassed during testing of the system</p> <p>system monitor not installed in existing facilities which have 50% of the decertified Healy 400 nozzles replaced by the Model 400 ORVR nozzles before April 17, 2001</p> <p>system monitor not installed in existing facilities after April 17, 2001</p> <p>system monitor power light indicating the monitor has power at all times not installed or not functioning</p>

G-70-186  
Healy Model  
400 ORVR  
continued

light shall indicating that the vapor recovery system  
“motor” has power not installed or not functioning

two lights shall indicating the system is operating within  
either “normal” or “low” vacuum levels not installed or  
not functioning

monitor not set to light the “low” vacuum indicator at the  
beginning of dispensing when the system vacuum level  
is below sixty-five inches water column (65” WC)

run light not set to light when 65 inches water column or  
higher vacuum is present

monitor does not sound an alarm and record a vacuum  
failure when the pressure switch does not sense sixty-  
five inches of vacuum being created within fifteen  
seconds of the time from which the system is energized  
for three consecutive dispensings, under normal  
operating conditions

system does not operate within the vacuum level range  
specified for the Healy Central Vacuum Unit

vacuum levels are below the specified range, for more  
than three seconds, measured while dispensing is  
occurring

low “vacuum” indicator light does not flash on the  
monitor when vacuum levels are below the specified  
range, for more than three seconds, measured while  
dispensing is occurring

monitor does not sound an alarm or record a no-vacuum  
failure after one hour of a low vacuum condition

vacuum levels above the specified range

system monitor not located in an area visible to station  
personnel while at their common workplace

pressure sensor capable of measuring the true vapor  
line vacuum or installed in a location that will cause  
interferences with normal flow characteristics

system monitor does not create a permanent record of  
system operation

<p>G-70-186 Healy Model 400 ORVR continued</p>		<p>vent-sensing portion of the system monitor does not have two indicator lights</p> <p>vent light not lighting when venting is occurring</p> <p>second light not illuminated or the alarm not sounding after ten hours of venting have has been recorded in a calendar day</p> <p>failure to call for maintenance within 24 hours of an initial alarm</p> <p>failure to maintain the log as specified</p> <p>failure to log in alarm and/or corresponding maintenance action within 7 days of alarm event</p> <p>more than one alarm condition in a three-month period for which maintenance was necessary to correct a leak in the high-vacuum portion of the system, and/or to raise the vacuum level above the required minimum level</p>
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E.O. #	Equipment:	Defects:
G-70-188 Catlow ICVN		<p>efficiency compliance device (ECD) not installed or installed incorrectly</p> <p>ECD damaged such that at least <math>\frac{3}{4}</math> of the diameter is missing or which has cumulative damage equivalent to at least <math>\frac{3}{4}</math> of the diameter missing</p> <p>less than four unobstructed vapor collection holes</p> <p>any nozzle with a defective vapor valve</p> <p>any nozzle leak rate exceeding: 0.038 CFH at a pressure of two inches water column (2" wc) or 0.005 CFH at a vacuum of twenty seven inches water column</p> <p>A/L less than 0.90 greater than 1.10</p> <p>electronic safeguards that dispense fuel when the system is not operating properly</p> <p>failure or loss of the system power supply does not shut down the entire dispenser</p> <p>an open A.C. line fuse does not shut down the entire dispenser</p> <p>cabling/wiring missing or disconnected (tampering) does not shut down the entire dispenser</p> <p>excessive vapor pump motor current does not halt or inhibit the operation of the one side of the dispenser, or indicate an error code, or allow the other side to operate</p> <p>failure of the vapor pump to start while fuel is being dispensed does not halt or inhibit the operation of the one side of the dispenser, or indicate an error code, or allow the other side to operate</p> <p>vapor pump activity during idle periods when no fuel is being dispensed does not halt or inhibit the operation of the one side of the dispenser, or indicate an error code, or allow the other side to operate</p> <p>exceeding maximum permissible pump speed does not halt or inhibit the operation of the one side of the dispenser, or indicate an error code, or allow the other side to operate</p>

G-70-188 Catlow ICVN continued		disconnection or accidental swapping of Side A/B vapor pumps does not halt or inhibit the operation of the one side of the dispenser, or indicate an error code, or allow the other side to operate
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E.O. #	Equipment:	Defects:
<p>G-70-191 Healy ORVR</p>	<p>over-temperature protection</p> <p>voltage protection</p> <p>power level control</p> <p>inverted coaxial hoses</p>	<p>not capable of fueling a motor vehicle that may be fueled at service stations not equipped with vapor recovery systems</p> <p>vapor collection boot not installed or installed incorrectly</p> <p>any nozzle with a vapor collection boot which has one half of the mini-boot faceplate or greater missing</p> <p>any integral vapor valve not installed, installed incorrectly, or not operating properly</p> <p>any nozzle leak rate exceeding: 0.038 CFH at a pressure of two inches water column (2" wc) or 0.005 CFH at a vacuum of twenty seven inches water column</p> <p>an A/L less than 1.00 or greater than 1.20</p> <p>the system does not generate an error signal when a liquid blockage in the vapor path is sustained for more than 15 seconds</p> <p>the system does not shut down when the pump exceeds 90 degrees Celsius</p> <p>once shut down, the system does not reset automatically when the pump cools down below 80 degrees Celsius</p> <p>115 volt systems with operating voltages less than 90 or greater than 135 volts</p> <p>230 volt systems with operating voltages less than 180 or greater than 270 volts</p> <p>the system fails to automatically sense conditions that cause high power levels and shut down</p> <p>once shut down, the system does not restart</p> <p>after the third shut down send signal wait-restart cycle failure the system restarts without a manual "restart signal" from the service station</p> <p>any hose greater than 13 feet long</p> <p>any length of hose in contact with the island and/or</p>

G-70-191 Healy ORVR continued	inverted coaxial hoses continued	ground when the nozzle is properly mounted on the dispenser greater than six inches (6") per loop
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**ATTACHMENT II**  
**PUBLIC PARKING LOTS**

## **Public Parking Lots In The Vicinity Of 1001 I Street**

725 7<sup>th</sup> Street (on the East side between G and H Streets)

916 11<sup>th</sup> Street (on the West side between I and J Streets)

1280 I Street (on the South side between 12<sup>th</sup> and 13<sup>th</sup> Streets)

770 J Street (on the South side between 7<sup>th</sup> and 8<sup>th</sup> Streets)

825 J Street (on the North side between 8<sup>th</sup> and 9<sup>th</sup> Streets)

1145 J Street (on the North side between 11<sup>th</sup> and 12<sup>th</sup> Streets)

1040 13<sup>th</sup> Street (on the West side between J and K Streets)

Street addresses may be an approximation. Each lot has varying rates based on hourly to daily intervals.